

PGY-6, Senior Resident

Dimitris G. Placantonakis MD, PhD, received a BS in Molecular Biology and Mathematics from Long Island University in 1995. He was the valedictorian of his class and graduated *summa cum laude*. He then joined the MD-PhD program at New York University. For his doctoral thesis, he studied the contribution of neuronal gap junctional coupling to electrical oscillations in the inferior olive under the supervision of John P. Welsh. At NYU, he was elected to AOA and received the AOA award for the highest scholastic rating in his class. In 2003, he began training in Neurosurgery at Weill Cornell Medical College. Within his residency training, he completed a 2-year research fellowship in the laboratories of Viviane Tabar and Lorenz Studer at Memorial Sloan-Kettering Cancer Center. His research focused on the transgenesis of human embryonic stem cells with bacterial artificial chromosomes toward the generation of pure human motor neuron populations. This research was funded by a NREF grant from the AANS and he was the recipient of the CNS Resident Award in 2008. His clinical interest is in neurosurgical oncology, while his laboratory interests include human embryonic stem cell research, gene and cell therapy, and molecular neurophysiology.

Publications

Articles in professional peer-reviewed journals

1. **Placantonakis**, D. G., Shariff, S., Lafaille, F., Labar, D., Harden, C., Hosain, S., Kandula, P., Schaul, N., Kolesnik, D. & Schwartz, T. H. Bilateral Intracranial Electrodes for Lateralizing Intractable Epilepsy: Efficacy, Risk and Outcome (submitted for review).
2. **Placantonakis**, D. G., Tomishima, M. J., Desbordes, S., Lafaille, F., Socci, N., Lee, H., Tabar, V. & Studer, L. Developmentally regulated transgene expression via BAC transgenesis of human embryonic stem cells (in preparation).
3. **Placantonakis**, D. G., Laufer, I., Wang, J., Beria, J., Boland, P. & Bilsky, M. Posterior stabilization strategies following resection of the cervicothoracic junction tumors: Review of 90 consecutive cases. *Journal of Neurosurgery: Spine* (in press).
4. Desbordes, S. C., **Placantonakis**, D. G., Ciro, A., Socci, N. D., Lee, G., Djaballah, H. & Studer, L. High-throughput screening assay for the identification of compounds regulating self-renewal and differentiation in human embryonic stem cells. *Cell Stem Cell* 2:602-612.
5. **Placantonakis**, D. G., Tabaei, A., Anand, V.K. & Schwartz, T. H. 2007. Safety of intrathecal fluorescein for the closure of cerebrospinal fluid leak in endoscopic endonasal skull base and pituitary surgery. *Neurosurgery* 61:S161-166.
6. Tabaei, A., **Placantonakis**, D. G., Schwartz, T. H. & Anand, V. K. 2007. Intrathecal fluorescein in endoscopic skull base surgery. *Otolaryngology-Head and Neck Surgery* 137:316-320.
7. **Placantonakis**, D. G., Bukovsky, A. A., Kiem, H.-P. & Welsh, J. P. 2006. Continuous electrical oscillations emerge from a coupled network: A study of the inferior olive using lentiviral knockdown of connexin36. *Journal of Neuroscience* 26:5008-5016.
8. **Placantonakis**, D. G., Lis, E. & Souweidane, M. 2006. Intradiploic cerebrospinal fluid fistulae of iatrogenic origin: a report of two cases. *Journal of Neurosurgery: Pediatrics* 104:356-359.
9. **Placantonakis**, D. G., Ney, G., Edgar, M., Souweidane, M., Hosain, S. & Schwartz, T. H. 2005. Neurosurgical management of medically intractable epilepsy associated with Hypomelanosis of Ito. *Epilepsia* 46:329-331.
10. Welsh, J. P., Ahn, E. S. & **Placantonakis**, D. G. 2005. Is autism due to brain desynchronization? *International Journal of Developmental Neuroscience* 23:253-263.
11. **Placantonakis**, D. G., Bukovsky, A. A., Zeng, X.-H., Kiem, H.-P. & Welsh, J. P. 2004. Fundamental role of inferior olive connexin 36 in muscle coherence during tremor. *Proceedings of the National Academy of Sciences of the USA* 101:7164-7169.
12. Welsh, J. P., Yuen, G., **Placantonakis**, D. G., Vu, T., Haiss, F., O'Hearn, E., Molliver, M. E. & Aicher, S. A. 2002. Why do Purkinje cells die so easily after global brain ischemia? Aldolase C, EAAT4 and the cerebellar contribution to post-hypoxic myoclonus. *Advances in Neurology* 89, 331-359.
13. Welsh, J. P., **Placantonakis**, D., Seiden, S., Marquez, R., Bernstein, L. & Aicher, S. 2002. The serotonin hypothesis of myoclonus from the perspective of neuronal rhythmicity. *Advances in Neurology* 89, 307-329.
14. **Placantonakis**, D. G., Cicerata, F. & Welsh, J. P. 2002. A dominant negative mutation of neuronal connexin 36 that blocks intercellular permeability. *Molecular Brain Research* 98, 15-28.
15. **Placantonakis**, D. G. & Welsh, J. P. 2001. Two distinct oscillatory states determined by the NMDA receptor in rat inferior olive. *Journal of Physiology (London)* 534, 123-140.
16. **Placantonakis**, D. G., Schwarz, C. & Welsh, J. P. 2000. Serotonin suppresses subthreshold and suprathreshold oscillatory activity of rat inferior olivary neurones in vitro. *Journal of Physiology (London)* 524, 833-851.

Book chapters

1. **Placantonakis**, D. G., Tomishima, M. J., Lafaille, F. G. & Studer, L. Genetic manipulation of human embryonic stem cells. In *Regulatory Networks in Stem Cells* (ed. R. Vinagolu & V. Mohan). Humana Press, Totowa, NJ (in press).
2. **Placantonakis**, D.G., Shariff S. & Schwartz, T.H. Frameless stereotactic placement of temporal depth electrodes. In *Fundamentals of Operative Techniques in Neurosurgery, Second Edition* (ed. E.S. Connolly, G.M. McKhann, J. Huang, T.F. Choudhri & J. Mocco). Thieme Medical Publishers, New York, NY (in press).
3. **Placantonakis**, D.G., Kandula, P. & Schwartz, T.H. Depth electrodes in invasive epilepsy monitoring. In *Operative Techniques in Epilepsy Surgery* (ed. G.H. Baltuch & J.-G. Villemure). Thieme Medical Publishers, New York, NY (in press).
4. Tabaei, A., **Placantonakis**, D., Schwartz, T. H. & Anand, V. K. 2006. Endoscopic Closure of Anterior Skull Base Defects. In *Practical Endoscopic Skull Base Surgery* (ed. V. K. Anand & T. H. Schwartz). Plural Publishing, San Diego, CA.
5. **Placantonakis**, D. G. 2005. Neurosurgery. In *Surgical Recall* (ed. L.H. Blackbourne). Matthews Medical Books.
6. **Placantonakis**, D. G. 2002. *On the role of gap junctional communication in inferior olivary oscillations*. Doctoral dissertation, New York University. New York, NY.